IN THE SPECIFICATION:

Please replace the paragraph beginning at page 5, line 4, with the following rewritten paragraph:

A1

--Suitable implant materials are generally conductive materials such as conductive polymers or metals used in dental technology or in the endoprosthesis and trauma fields. Titanium and titanium alloys such as ~~$TiAl_6V_4$~~ Ti_6Al_4V are particularly preferred.–

Please replace the paragraph beginning at page 9, line 27, with the following rewritten paragraph:

A2

--A cylinder of ~~$TiAl_6V_4$~~ Ti_6Al_4V (h = 2 mm, Æ 10 mm) is metallographically prepared using a sealing TiO_2 polish. The cylinder is then cleaned in acetone and ethanol in an ultrasonic bath and rinsed with distilled water.--

Please replace the paragraphs beginning at page 10, line 31 to page 11, line 30 with the following rewritten paragraphs:

A3

--A cylinder of ~~$TiAl_6V_4$~~ Ti_6Al_4V is prepared as in Example 1. The construction of the electrolysis cell and the electrolyte for calcium phosphate deposition are identical to that in Example 1.After connection to the potentiostat, coating with CPP is carried out by means of galvanostatic polarization under cathodic current flow at -10 mA/cm^2. After 30 minutes, the cathodic polarization is interrupted, and the sample is taken out of the electrolyte solution and rinsed with deionized water. A crystalline CPP, hydroxyapatite, is now present on the ~~$TiAl_6V_4$~~ Ti_6Al_4V surface. The sample is now immersed in a collagen solution which is identical to that in Example 1. The sample coated with hydroxyapatite remains in this solution for 10 minutes, then it is rinsed with deionized water and again incorporated into the electrolysis cell. After connection to the potentiostat, deposition of hydroxyapatite again takes place by means of galvanostatic polarization under cathodic current flow at

–10 mA/cm^2. After 20 min, the sample is taken out and rinsed with deionized water. The deposited layer appears whitish. Electron-microscopic examination shows a closed layer which consists of agglomerates of small needles. A network of mineralized collagen fibrils is situated on this layer. IR-spectroscopic and X-ray diffraction investigations furnish proof that the mineral phase consists of hydroxyapatite. The characteristic amide bands in the IR spectrum furthermore show that the collagen is not present in denatured form, but on the contrary a good agreement exists between the mineralized layer and a spectrum for native bone.

A3 Com.

Example 3

A cylinder of ~~$TiAl_6V_4$~~ $\underline{Ti_6Al_4V}$ is prepared as in Example 1. The construction of the electrolysis cell is identical to that in Example 1.--

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Please replace the paragraph beginning at page 12, line 25 bridging page 13, with the following rewritten paragraph:

--A cylinder of ~~$TiAl_6V_4$~~ $\underline{Ti_6Al_4V}$ is prepared as in Example 1. The construction of the electrolysis cell and the electrolyte for the calcium phosphate deposition are identical to that in Example 1.

A4

After connection to the potentiostat, coating with CPP by means of galvanostatic polarization is carried out under cathodic current flow at -10 mA/cm^2. After 30 minutes, cathodic polarization is interrupted, and the sample is taken out of the electrolyte solution and rinsed with deionized water. A crystalline CPP, hydroxyapatite, is now present on the ~~$TiAl_6V_4$~~ $\underline{Ti_6Al_4V}$ surface. The sample is now immersed in a collagen solution which is identical to that in Example 1. The sample coated with hydroxyapatite remains in this

solution for 10 minutes, then it is rinsed with deionized water and again incorporated into the electrolysis cell. After connection to the potentiostat, partial mineralization of the collagen is carried out under cathodic current flow at -10 mA/cm^2 for 15 min. Finally, the sample is rinsed with deionized water. The deposited layer appears whitish. In a second process step, the binding of integrin-specific cell-selective peptide sequences to the immobilized collagen layer is carried out. The binding is carried out covalently by means of a thiol anchor and SMPB (sulfosuccinimidyl 4-(p-maleimidophenyl)butyrate) to the phosphate groups of the collagen.--

Please replace the paragraph beginning at page 13, line 31, with the following rewritten paragraph:

--Figure 1

shows the cell proliferation of MC3T3 mouse osteoblasts on hydroxyapatite and on the bone-analogous collagen/hydroxyapatite matrix, in each case on ~~$TiAl_6V_4$~~ Ti_6Al_4V substrates. The absorption is proportional to the cell count (WST-1 test).--